



St Hilliers Property

Kent Road Public School
126 Kent Road, Marsfield NSW

Operational Waste Management Plan



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1. INTRODUCTION

This Operational Waste Management Plan (OWMP) has been prepared by APC on behalf of the St Hillier's (The Builder) for the proposed redevelopment works of Kent Road Public School (the site).

It accompanies an Environmental Impact Statement (EIS) in support of State Significant Development Application SSD 9344 and addresses aspects of waste management to meet the Local Government Development Application (the DA) requirements and the Green Star – Design & As Built v1.2 Operational Waste Credit 8 criteria. The OWMP has been designed meet the mandatory requirements of the Educational Facilities Standards and Guidelines NSW for new and refurbished schools. This OWMP addresses operational waste targets, aims to minimise environmental harm from waste and the disposal of waste and outlines effective waste management systems.

The plan details:

- management requirements for waste and recycling material generated from the ongoing use of the development
- ensures commercial waste generators are responsible for handling and storing waste generated on their premises.
- Identify the site boundary, the waste streams relevant to the project, and the individual roles responsible for delivering and reviewing the OWMP;
- Outline methods for encouraging the separation of waste streams, such as bins, storage areas, or recycling facilities in public areas as required;
- Identify opportunities for reuse and recycling in the operation of the school.

1.1 PROJECT SUMMARY

Kent Road Public School provides education to kindergarten and primary school students for the local school catchment area, and NSW Government has recently provided funds to upgrade the school's core facilities and construct additional buildings to ensure it can accommodate the increased surrounding population.

It is understood that the proposed redevelopment of the site consists of:

- Construction of three new multi storey buildings to allow for increased student population from 750 to 1,000, containing;
 - 34 Homebase spaces;
 - Canteen;
 - Administration facilities;
 - Staff facilities;
 - Special program/counselling rooms
- Construction of a new Covered Outdoor Learning Area (COLA);
- Reconfiguration of car drop off / pick up arrangements on Kent Road;
- Landscaping and fencing;
- Tree removal.

The breakdown of uses for each new building is shown in Table 1.

Table 1 - Building breakdown by usage

Building	Usage/assumptions	NLA (m ²)
P	18 Homebase spaces (HB)	HB: 1,190
P	3 Shared PAA and 3 Shared Presentation (P)	PAA: 151 and P: 170
P	Toilets (T) and 3 Cleaners Rooms (CL)	T: 40 and CL: 9
Q	16 Homebase spaces; Canteen (C)	HB: 1,050 and C: 73
Q	3 Shared PAA and 3 Shared Presentation (P)	PAA: 151 and P: 170
Q	Toilets (T) and 3 Cleaners Rooms (CL)	T: 17 and CL: 9
R	Administration and Staff Facilities (A); Special program rooms (S)	A: 430 and S: 79
Other	Existing Buildings (E) New Toilet Block (TB) Toilet Block Cleaners Room (CL)	E: 2,395 TB: 97 CL: 4

These figures are based on room schedules as advised by St Hillier's Property.

1.2 LOCATION

The site is located at 126 Kent Road, Marsfield, NSW as shown in Appendix A. The site has frontages to Herring Rd and Kent Road, with access for waste collections via Kent Rd.

1.3 OBJECTIVES

The OWMP objectives are as follows:

Waste minimisation:

1. To encourage building designs, construction and demolition techniques which minimise waste generation.
2. To maximise reuse and recycling of household waste and industrial/commercial waste.
3. To minimise the overall environmental impacts of waste and foster the principles of ecologically sustainable development (ESD).

Waste management:

1. To assist applicants in planning for sustainable waste management, through the preparation of a site waste minimisation and management plan.
2. To develop systems that ensure waste is transported and disposed of in a lawful manner.
3. To outline source separation, design and location standards which complement waste collection and management services.
4. To provide guidance in regard to space, storage, amenity and management of waste management facilities.
5. To minimise risks associated with waste management at all stages of development.

2. LEGISLATIVE REQUIREMENTS AND GUIDELINES

2.1 LEGISLATION & REGULATIONS

This OWMP has been prepared in accordance with legislation relevant to waste management at the site as below:

The Environmental Protection Act 1970

Environmental Planning and Assessment Act 1979

- *Environmental Planning and Assessment Regulation 2000*

Protection of the Environment Operations Act 1997

- *Protection of the Environment Operations (General) Regulation 2009*
- *Protection of the Environment Operations (Waste) Regulation 2014*

Waste Avoidance and Resource Recovery Act 2001

2.2 GUIDELINES

Guidance documents and policies considered in the preparation of this OWMP are included below:

NSW Environment Protection Authority (EPA) Waste Classification Guidelines 2014

NSW EPA's Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities 2012

NSW EPA's Better Practice Guide for Waste Management in Multi-unit Dwellings 2008

NSW EPA's Waste Avoidance and Resource Recovery (WARR) Strategy 2014-21

Australian Government National Waste Policy - Less Waste More Resources 2018

Educational Facilities Standards & Guidelines (EFSG) NSW Updated 2020

3. GREEN STAR DESIGN & AS BUILT 08A ABD 08B

3.1 AIM OF CREDIT

To recognise projects that implement waste management plans that facilitate the re-use, recycling, or conversion of waste into energy, and stewardship of items to reduce the quantity of outgoing waste.

Table 2 - Green Star Requirements

8A PERFORMANCE PATHWAY	
Separation of waste streams	<p>The following waste streams must be provided with separate bins or containers:</p> <ul style="list-style-type: none"> • Food Organics and Garden Organics • Comingled containers • Paper & cardboard • Container Deposit Scheme • Soft Plastic <p>General waste advice form the GBCA indicates that where the waste collection service collects recyclables as a comingled stream, the requirement to provide separated waste streams for these recyclables is removed.</p> <p>This is permissible to the extent of comingling accepted by the waste collection service</p> <p>For example, if glass and plastic are collected as co-mingled, then paper and cardboard is still required to have a separated waste stream.</p>
Dedicated Waste Storage Area	<p>Two dedicated and sufficiently sized areas for the storage and collection of the applicable waste streams shall be provided.</p> <p>Calculations for the waste storage areas required in the Kent Road Public School development have been carried out based on:</p> <ul style="list-style-type: none"> • waste generated by the school, • collection method and materials handling requirements of each stream, • collection frequency for each waste stream, • projected tenancy structure impact on the waste collection services supply chain, • hygiene, cleanliness and aesthetic aspects to the benefit of the development. <p>It is noted, the waste generation rates are consistent with and based on Schedule 2 of City of Ryde Development Control Plan (DCP 2014</p>

Access to Waste Storage Area	<p>Access requirements for waste collection areas must adhere to best practices.</p> <p>These access arrangements must be as outlined within third-party Best Practice Guidelines.</p> <p>Best Practice Guidelines outline the following requirements:</p> <ul style="list-style-type: none"> The access pathway for wheeling bins between a central waste storage point and the collection point must be level and free of steps or kerbs. The maximum manual handling distance between the storage point and the collection point for mobile garbage bins is 20 meters. 	<p>The transfer pathway in the Kent Road development meets the requirements of the Schedule 2 of City of Ryde Development Control Plan (DCP 2014)</p> <p>The proximity of the waste collection vehicle parking location and the central waste management room is 20 meters.</p> <p>The pathway is designed such way that it is clear and safe, and a mechanical tug can be used as required.</p>
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4. WASTE GENERATION

4.1 WASTE TYPES

The NSW EPA Waste Classification Guidelines (NSW EPA, 2014a) groups wastes that pose similar risks to the environment and human health, as defined in the Protection of the Environment Operations Act 1997. The Educational Facilities and Standards Guidelines (EFSG) outlines the appropriate waste streams which must be included in all new school sites.

The primary waste streams expected to be generated corresponding to the EFSG guidelines and EPA classifications for the ongoing operation of the development are summarised in Table 2.

Table 3 - Potential Waste Types and Classifications

Waste Type	EPA Classification	Bin Colour	Waste Management
Paper including all types of recyclable paper but excluding paper towels, toilet paper & tissues	General solid waste (non-putrescible)	Blue	Paper recycling
Cardboard, excluding waxed cardboard		Blue	Cardboard recycling
Metals (steel, aluminium, stainless)		Yellow	Co-mingled recycling, specific recycling or general waste
Plastics (recyclables)		Yellow	Co-mingled recycling
Plastics (non-recyclables)		Red	General waste
Soft Plastic		Any Colour	Plastic recycling
Glass including bottles and containers		Yellow	Co-mingled recycling
General refuse		Red	General waste
Plastic bottles and containers		White	Container Deposit Scheme
Food scraps / organics material		General solid waste (putrescible)	Lime Green
Lead-acid or nickel-cadmium batteries, e-waste	Potentially hazardous waste	NA	Specific recycling

Designers must refer to EFSG - AS 4123.7 for colours, markings, and designation requirements for further guidance on bin colour, waste stream and waste type.

Table 4. AS 4123.7 Waste Storage Requirements

Bin Colour	Waste Stream	Waste type
Lime Green	Organics	Food Organics and Garden Organics
Yellow	Recycling	Comingled containers
Blue	Recycling	Paper & cardboard
White	Recycling	Container Deposit Scheme
Any colour	Recycling	Soft Plastic
Red	General	General waste

4.2 ESTIMATE OF QUANTITIES

To derive indicative quantities of waste, the following assumptions have been applied:

- The occupancy rate = 5 days per week
- Calculations are generic figures based on available guidance and actual waste quantities and composition will depend on the final activities of the site.

Guidance documents referenced to calculate expected waste generation quantities for the development are as follows:

- Better Practice Guide for Waste Management in Multi-unit Dwellings (NSW EPA 2008)
- Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities (EPA 2012)
- Schedule 2 of City of Ryde Development Control Plan (DCP 2014).
- Educational Facilities Standards & Guidelines (EFSG) NSW Updated 2020

The (EPA 2012) guidelines state that recycling waste expected to be generated per 100m² of area in a Primary School setting is 0 Litres. In the opinion of APC, this is under-representative of waste generation at a modern primary school and as such APC has adopted more conservative recycling generation estimates based on information gathered from the (NSW EPA 2008) & (DCP 2014) guidelines.

The following tables shows the conservatively estimated volume (L) of the expected quantities and composition of waste and recyclables generated through the ongoing operation of the facility.

Table - General Waste Generation Schedule Estimates

Area Type	Area (m ²)	Day Rate (L per 100m ²)	Total per Day Rate	Weekly Rate (5 days)
Existing School Space	2496	7	174.72	873.6
Proposed New School Space	3036	7	212.52	1062.6
Proposed New Office Space	430	10	43	215
Proposed New Canteen Space	73	175	127.75	638.75
			Total	2790

Table 5 - Recycling Generation Schedule Estimates

Area Type	Area (m ²)	Day Rate (L per 100m ²)	Total per Day Rate	Weekly Rate (5 days)
Existing School Space	2496	10	249.6	1248
Proposed New School Space	3036	10	303.6	1518
Proposed New Office Space	430	10	43	215
Proposed New Canteen Space	73	190	138.7	693.5
Total				3675

Table 6 - Estimated Average Waste and Recycling Generation Rates

Waste	Quantity Generated per Week (L)	Clearance Frequency
General Waste	2039	Minimum of once per week
Paper & Cardboard Recycling	2297	Minimum of once per week
Containers Deposit	660	Minimum of once per week
Food and Garden Organics	183	Minimum of once per week
Soft Plastic	240	Minimum of once per week
Comingled Containers	660	Minimum of once per week

5. WASTE STORAGE

5.1 STORAGE AREA SIZE ESTIMATES

Areas for storage and collection of the applicable waste streams will be provided as part of the proposed redevelopment. The storage areas will be sized to accommodate all bins or containers, for all applicable waste streams, for at least one collection cycle.

The breakdown on recycling between paper and co-mingle recycling in the NSW EPA's Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities 2012 was adopted for this calculation. This assumes comingled recycling is composed of 62.5% "paper" and 37.5% "containers". The tables 6, 7 and 8 below have been updated on this basis.

The calculations used to determine the area are as follows:

Table 7 - Waste Storage Area - Estimated Requirements for Weekly collection

Waste Stream	Generated Material (L/week)	Clearance Frequency	No of Bins per clearance cycle	Bin Type	Each Bin Footprint m ²	Total Footprint m ²
<i>Garbage Waste</i>	2006	Weekly	4	MGB-660 L	1.05	4.2
<i>Paper & Cardboard Recycling</i>	2,297	Weekly	4	MGB-660 L	1.05	4.2
<i>Commingled Containers Recycling</i>	660	Weekly	3	MGB-660 L	1.05	3.15

<i>Organics</i>	183	weekly	1	MGB 240L	.44	.44
<i>Container Deposit</i>	660	weekly	1	MGB 660L	1.05	1.05
<i>Soft Plastics</i>	240	weekly	1	MGB 240L	.44	.44
Total bin footprint						13.48
Minimum suggested room size - including circulation space						19.02

Based on the rates estimated in Table 6 up to 12 x 660L MGBs and 2 x 240L would be required to be stored at the site on a weekly collection basis.

Table 8 - Waste Storage Area - Estimated Requirements for Daily

Waste Stream	Generated Material (L/week)	Weekly Clearance Frequency	No of Bins per clearance cycle	Bin Type	Each Bin Footprint m ²	Total Footprint m ²
<i>Garbage Waste</i>	2006	Daily	1	MGB- 660 L	1.05	1.05
<i>Paper & Cardboard Recycling</i>	2,297	Daily	1	MGB- 660 L	1.05	1.05
<i>Commingled Containers Recycling</i>	660	Daily	1	MGB- 660 L	1.05	1.05
<i>Organics</i>	183	Weekly	1	MGB 240	.44	.44
<i>Container Deposit</i>	660	Weekly	1	MGB- 660 L	1.05	1.05
<i>Soft Plastics</i>	240	Weekly	1	MGB 240	.44	.44
Total bin footprint						5.08
Minimum suggested room size - including circulation space						7.08

Based on the rates estimated in Table 7 up to 4 x 660L MGBs and 2 x 240L would be required to be stored at the site on a daily collection basis.

However, the storage areas are a sufficient size if the waste collection occurs daily combined with weekly collection for 'organics', 'container deposit' and 'soft plastic'.

5.2 WASTE FACILITIES CONSTRUCTION/MAINTENANCE

Responsibility for cleaning of waste storage areas and service compartments will be designated to the cleaning staff. The room for storing waste and recycling will be located in a position that is convenient for both users and waste collection staff. All waste facilities must comply with the Building Code of Australia (BCA) and relevant Australian Standards (AS) in accordance with the requirements of City of Ryde DCP 2014. The BCA requirements for waste storage rooms is summarised in Appendix C.

The basic requirements for waste handling facilities are as follows:

- To be of adequate size
- Integrated with building design and site landscaping.
- Suitably screened from public areas.
- With appropriate access for collection.
- Assurance that OH&S requirements for waste contractors are met.

6. WASTE MANAGEMENT

6.1 WASTE STORAGE SYSTEMS

It is anticipated that mobile garbage bins (MGBs) will be utilised within the waste storage areas. Any combination of MGBs are suitable to use for waste streams so long as they meet the required volume of waste storage as discussed in Section "STORAGE AREA SIZE ESTIMATES".

Small quantities of hazardous wastes may be generated (e.g. light bulbs, E-waste, batteries, oil, chemicals or paint). Separate containers for the safe storage of these wastes in the waste storage areas should be provided where applicable, prior to removal offsite by an appropriately licensed contractor for recycling or disposal at a licensed facility.

6.2 WASTE MOVEMENT

It is anticipated that staff and visitors will place general waste and recycling into small waste and recycling bins (paper and co-mingled) located in the offices, canteen, classrooms and open space playground. These small waste bins should be segregated as per the final waste streams. Waste will be then transported by cleaning contractors via the nominated access corridors to the waste storage areas and placed in the correct waste stream bins. Where waste is required to be transported from Level 1 and 2 to the ground floor, this will be undertaken via the use of lifts within each building. Prior to collection, waste stored in the 660 L bins in the waste storage areas will be transported via the centralised roadway to the loading dock by the cleaning contractor.

- Bins will be clearly labelled using colour coding according to AS4123.7-2006 Mobile Waste Containers;
- General waste and recyclable waste will be collected in separate bins;
- The path from the units to waste storage area will be level for easy transfer of waste and recycling;
- Path of travel from the waste storage area to the truck has no steps or kerbs, has a maximum transfer distance of 75 meters and a maximum gradient ratio of 1:14;
- Bins will be kept clean and in good condition;
- Any damaged, lidless, wheel-less, split or incomplete bins will be repaired or disposed of after being replaced;
- Appropriate personal protective equipment (PPE) will be provided for all people handling waste or bins.

6.3 WASTE COLLECTION POINT

The loading bay (with turning bay) within the northern portion of the site has been nominated as the waste collection point. Appointed waste contractors shall collect each waste stream from the loading bay at nominated times in accordance with the relevant waste contract. The loading bay is sufficiently sized in order to accommodate waste contractor vehicles in accordance with the specifications in the *Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities*

Appendix C (EPA 2012). The nominated waste collection point is within the boundary of the site and not within a public place.

6.4 VEHICLE MOVEMENTS

The whole loading bay has been nominated as the path of access to be used by waste collection vehicles. This access point will facilitate waste collection with a sufficient vertical height (>3.5 metres as per EPA (2012)) and turning space provided. Furthermore, using the northern loading bay (and turning area) and access via Kent Road will reduce conflict between staff cars which access the site via Herring Road and vulnerable road users, such as cyclists, with the larger waste vehicles.

Waste collection vehicles shall enter and exit the site in such a manner as to minimise risk of damage to the roadway, footpath or services under the ground. Waste collection vehicles shall not obstruct access to adjacent premises, roadways or the footpath. In addition, waste collection must be carried out with due care for public safety including other road users, cyclists and pedestrians.

6.5 COLLECTION HOURS

The waste collection truck will schedule collection out of school hours to reduce any risk from the truck and bin movements to the school children. The collection of waste and/or any recycling activity must only occur before 8 am and after 4 pm on school days and undertake to minimize noise disturbance to the students.

6.6 CONTRACTORS

A contract with a licensed waste contractor for the removal of all waste, will be arranged prior to an occupation certificate or commencement of use (earlier of the two). The contract should also include provisions for the collection of Hazardous Waste.

Sanitary (including clinical waste where applicable) waste handled by trained (or qualified) personnel using appropriate personal protective equipment and stored in dedicated bins and containers for collection by an appropriate qualified and licensed service provider for transport to a facility appropriate for the purpose of disposing of that waste .

Upon engagement, written evidence of a valid and current contract with a licensed collector for waste and recycling collection will be provided to the client. The contract will include details on the method, timing and disposal of waste. Commercial waste service collections and waste storage arrangements will be conducted in accordance with the City of Ryde Council's Waste Policy.

6.7 WASTE MANAGEMENT SERVICE CONTRACT

As of 1st October 2020, educational facilities in NSW must adhere to Contract 9698. This contract is mandatory under EFSG and covers waste management services (bins, collection, transport, processing, treatment, and disposal). Waste streams include general waste, organic, grease trap, recycling, secure destruction and clinical.

All bins are to be provided for collection by an appropriate authorised service provider under Contract 9698 for transport to a facility appropriate for the purposes of disposing of that waste.

6.8 SEGREGATING WASTE

Waste will be segregated into separate streams, including 'paper and cardboard recycling', 'commingled container recycling', 'container deposit', 'organics' and 'general' waste. Effective segregation is best achieved through:

- Education and training to all staff, visitors and students who generate waste;
- Ensuring identifiable colour coding and labelling of bins for each waste streams is implemented and maintained;
- Ordering and provision of suitable containers at appropriate locations;
- Incorporation of quick and efficient waste disposal methods into staff areas; and
- Ensuring all waste can be easily, safely and correctly segregated at the point of generation.

7. ONGOING WASTE MANAGEMENT

This OWMP forms the basis of operational waste management on site for the development. It is a living document which will be reviewed and revised to provide increased accuracy of waste generation estimates and to ensure appropriate onsite waste management in accordance with current and future waste management regulations and guidelines

Compliance by the administrative manager, staff, cleaning contractors and waste collection contractor is essential to ensure the efficacy of the system.

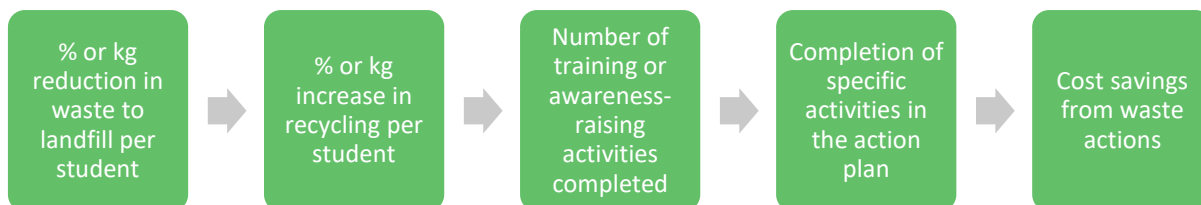
7.1 SIGNAGE

Signage will be provided in all waste disposal, storage and collection areas demonstrating how to use the waste management system, including what materials are acceptable in each bin. All waste streams will be stored in clearly labelled, colour coded bins as per the EFSG Guidelines Design Guide as to ensure that waste streams are not inadvertently mixed. Signage will be prepared and located on site in accordance with the Australian Standard (AS 1319) for safety signs, and the NSW EPA and Australian Standard for recycling signage. Examples of signage are shown in Appendix D.

7.2 GOALS, TARGETS & PERFORMANCE INDICATORS

By setting realistic achievable goals, targets & performance the OWMP is more likely to succeed and the school is able to report on waste diversion and reduction targets in line with the Department of Education's waste contract.

Examples of key performance indicators that may be relevant include:



7.2.1 SPECIFIC DIVERSION RATES AND REDUCTION TARGETS

Table 9- Estimated Diversion & reduction targets for waste streams

Waste	Quantity Generated per Year (L)	Diversion rate target	Reduction target
<i>Garbage Waste</i>	80,240	80%	80%
<i>Paper & Cardboard Recycling</i>	91,880	80%	80%
<i>Commingled Containers Recycling</i>	26,400	80%	80%
<i>Organics</i>	7,320	100%	100%
<i>Container Deposit</i>	26,400	100%	100%
<i>Soft Plastics</i>	9,600	100%	100%

Note: Waste and recycling diversion targets have been set by the Department of Education through the Whole of Government Waste Tender.

7.3 EDUCATION & TRAINING

Build a strong culture of waste reduction and recycling through regular waste management updates at assemblies, student gatherings, P&C meetings, staff inductions and meetings. Communicate waste goals, targets and performance indicators clearly to all stakeholders in your school and keep everyone up to date with the progress and achievements.

7.4 MONITORING & MEASUREMENT PROCEDURES

Evaluation is a key element of any project planning process. Assessing performance against goals or Key Performance Indicators (KPIs) and tracking costs and benefits are considerations for the effectiveness of this OWMP plan and the way actions have been implemented. If student and staff feedback is sought, student and school staff satisfaction and buy-in is another aspect that you may wish to assess. Compliance, environmental performance and identification of further actions are all part of this process. The information gained through evaluation is the basis for reporting to both

school staff and management and where necessary also to the NSW Department of Education. Staff will be encouraged to implement the Waste Management Hierarchy

WASTE HIERARCHY

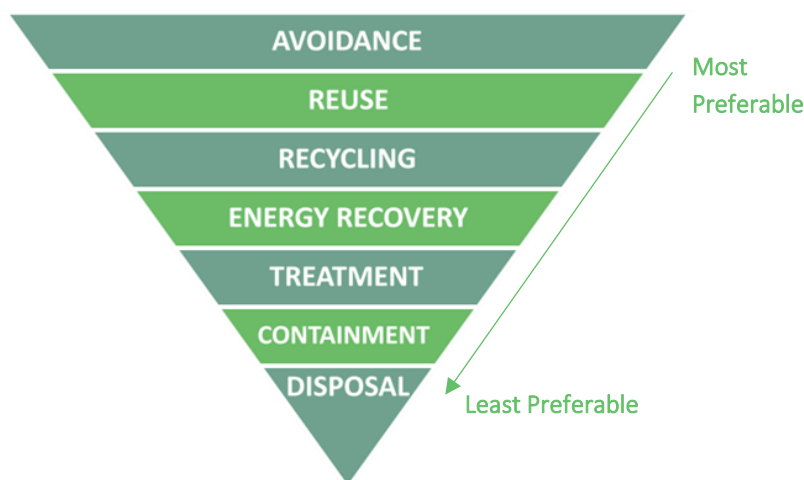


Figure 2 – Order of the Waste Hierarchy

Table 11 indicates waste management practices that should be adopted in accordance with the Waste Avoidance and Resource Recovery Act 2001 (NSW EPA, 2014).

Table 10 Implementing the Waste Hierarchy

Implementing the Waste Hierarchy	
Avoid / Reduce	
	Reduce general waste at the source, determine changes in returnable delivery systems including packaging and purchasing.
	Require suppliers to use stackable/ returnable/reusable boxes instead of disposable cardboard boxes.
	Focus on minimising waste (i.e. excess packaging, take-back, post use collection).
	Examining all processes to determine where wastes are produced and to devise measures for waste prevention or reduction
	Devising ways of reducing waste with students so they too can share in the savings (i.e rewards for students who reduce waste)
	Partnering with others to assist with waste minimisation.
	Keeping track of changes and improvement.
Reuse	
	Set up a reuse area for excess materials and promote the contribution and reuse of excess food.
	Donate old (useable) computer/electrical equipment, furniture and fittings to staff, charities, or sell at auction.
	Implement the Enviro Bank program for bottles and cans.
	Reusing drums, cartridges and containers where possible.
	Selling or donating usable waste materials to other organisations.
Recycle	
	Introduce recycling systems for major waste streams generated onsite including:

<ul style="list-style-type: none"> • Paper and cardboard, • Bottles and cans, • Packaging and plastics.
Modify or refresh signage on recycling bins or in recycling areas to promote correct recycling practice.
Provide regular information and education to staff on appropriate usage and recycling bins.
Investigating alternative uses for organic waste that cannot be reduced or reused (i.e composting, bio-gas from waste, digester, etc)
Provision for a bin station at a central location in school with the option of source separation and clear waste signage to ensure source separation
Explore opportunities for recycling waste types not included in the mandatory stream separation (i.e batteries, coffee cups, e-waste, etc
Waste Disposal
Students, staff and cleaners dispose of waste in accordance with the Waste Management Policy.
Monitoring and assessment
Request waste contractor to provide monthly data and reporting on recycled and materials sent to landfill.

7.4.1 ROLES & RESPONSIBILITIES

It is expected that all personnel will commit to the OWMP and be responsible for their own actions in adhering to the waste management objectives.

An Administrative Manager will be the key person responsible for implementation of the OWMP and adherence to applicable legislation, guidelines, licensing and project conditions. The Administrative Manager will also be responsible for maintenance of the cleaning infrastructure such as the service doors, locks, lighting, signage, colour coding and repair/replacement of MGBs.

Cleaning contractors will be responsible for the transfer of waste to the MGBs and the transfer of the MGBs to the waste collection point. In addition, the cleaning contractor will be responsible for cleaning of the waste storage areas.

Table 11 - Roles and Responsibilities

Responsibility	Activity	Monitoring
Administrative Manager	<ul style="list-style-type: none"> Ensuring staff (and students) are inducted into the OWMP and other applicable management plans. Responsible for undertaking procurement of operational materials in accordance with the waste management hierarchy. Segregation of waste streams where required to ensure appropriate use, treatment and/or disposal. Compliance with applicable environmental legislation and project conditions. Ensure environmental management plan(s) across the site are adhered to and accurate to site conditions. Undertake inspections to ensure compliance. Maintenance of waste-related signage, colour coding and MGBs. Security of waste storage areas during day to day business. Ensure no waste is placed on the public way. 	Monitor contract and cleaners for compliance to the Waste Management Plan.
Cleaners Removing Material	<ul style="list-style-type: none"> Responsible for acting in accordance with the OWMP. Transfer of waste within the facility. Transfer of MGBs to the nominated waste collection point and return of MGBs to waste storage areas. Responsible for cleaning of waste storage areas. Security of waste storage areas (during working hours). Ensure no waste is placed on the public way. Informing the Administrative Manager of any waste management incidences. 	Ensure there is no contamination in co-mingled bins.
Staff	<ul style="list-style-type: none"> Adherence to the OWMP. Placement of waste/recycling within correct bins. Notify manager/cleaning contractor when bins are overfull and require transport to the MGBs. Informing the Administrative Manager of any waste management incidences. 	Ensure there is no contamination in co-mingled bins.
Waste Contractors	<ul style="list-style-type: none"> Acknowledge and comply with waste targets Use reasonable endeavours to assist reaching the waste targets. Provide feedback on actual volumes of waste and recycling collected to enable waste volume evaluation by Administrative Manager. 	Quantify the amount and types of waste in accordance and monitor, report and address contamination through regular monitoring/bin inspections.

8. REVIEW PROCESS

Kent Road Public School Management will undertake a review of the Operational Waste Management Plan including the following indices:

Waste Management Contract

One site Signage

Waste Contractor Performance

Data on Recycling Rates

Waste Contractor Licences

On site Waste and Recycling systems

Use of onsite recycling systems

9. EVIDENCE OF WASTE AUDITOR QUALIFICATION

Jo Drummond

- Exemplar Global Waste Auditor Certificate Number 134233
- Exemplar Global (Previously RABQSA) Environmental Auditor (Auditor Grade)
- Exemplar Global (Previously RABQSA) Scope Waste Management

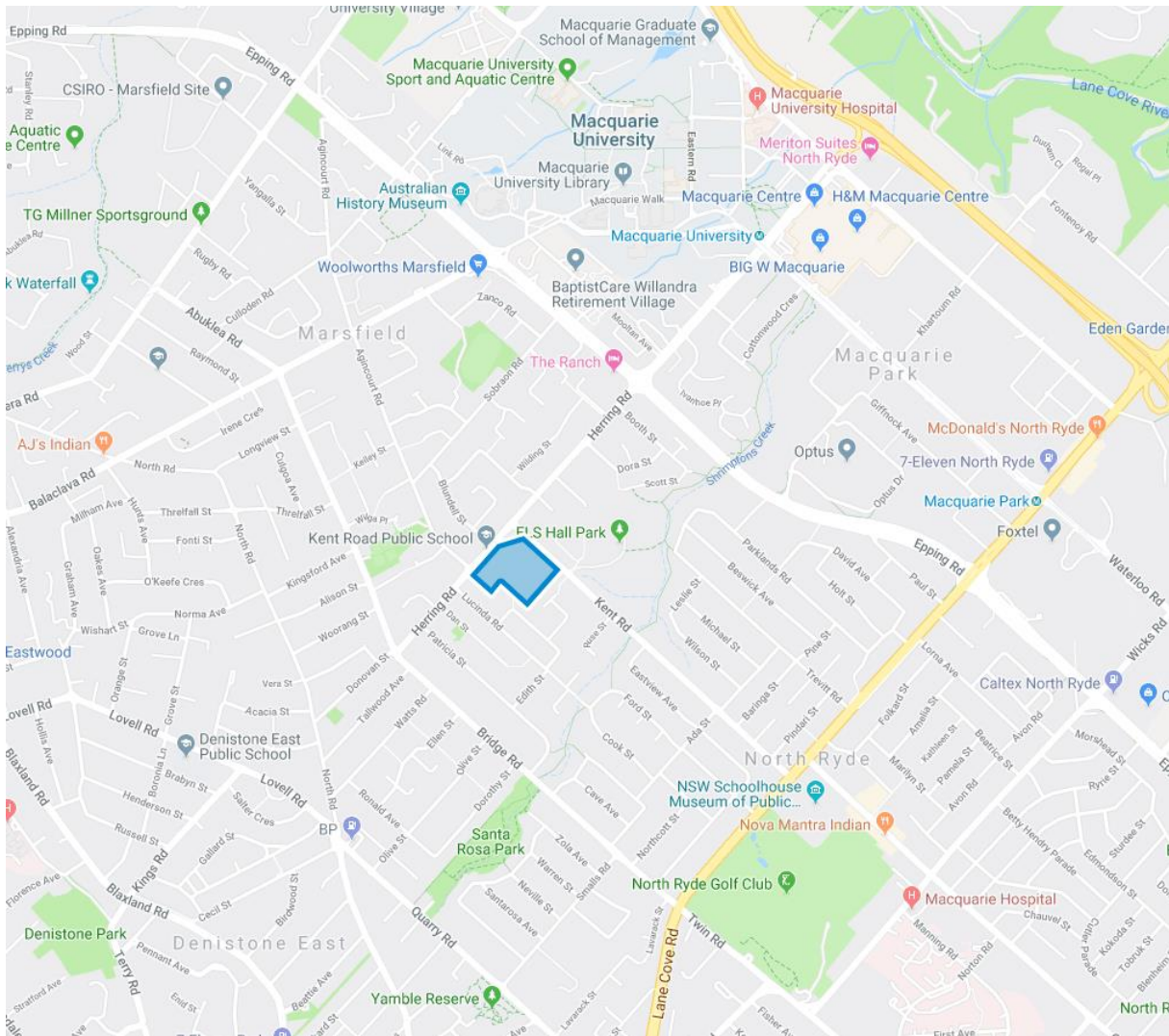
10. LIMITATIONS

This report documents an Operational Waste Management Plan (OWMP) as part of a redevelopment plan with the following limitations:

- Estimates and details contained in this waste management plan have been prepared by analysing the information, plans and documents supplied by the client, and third parties including Council and government information;
- The figures presented in the report are an estimate only – the actual amount of waste generated will be dependent on the occupancy rate and waste generation intensity as well as the approach to educating guests, staff and students regarding waste management operations and responsibilities;
- The School Administrative Manager will make adjustments as required based on actual waste volumes (if waste is greater than estimated) and increase the number of bins and collections accordingly;
- The report will not be used to determine or forecast operational costs or prepare any feasibility study or to document any safety or operational procedures;

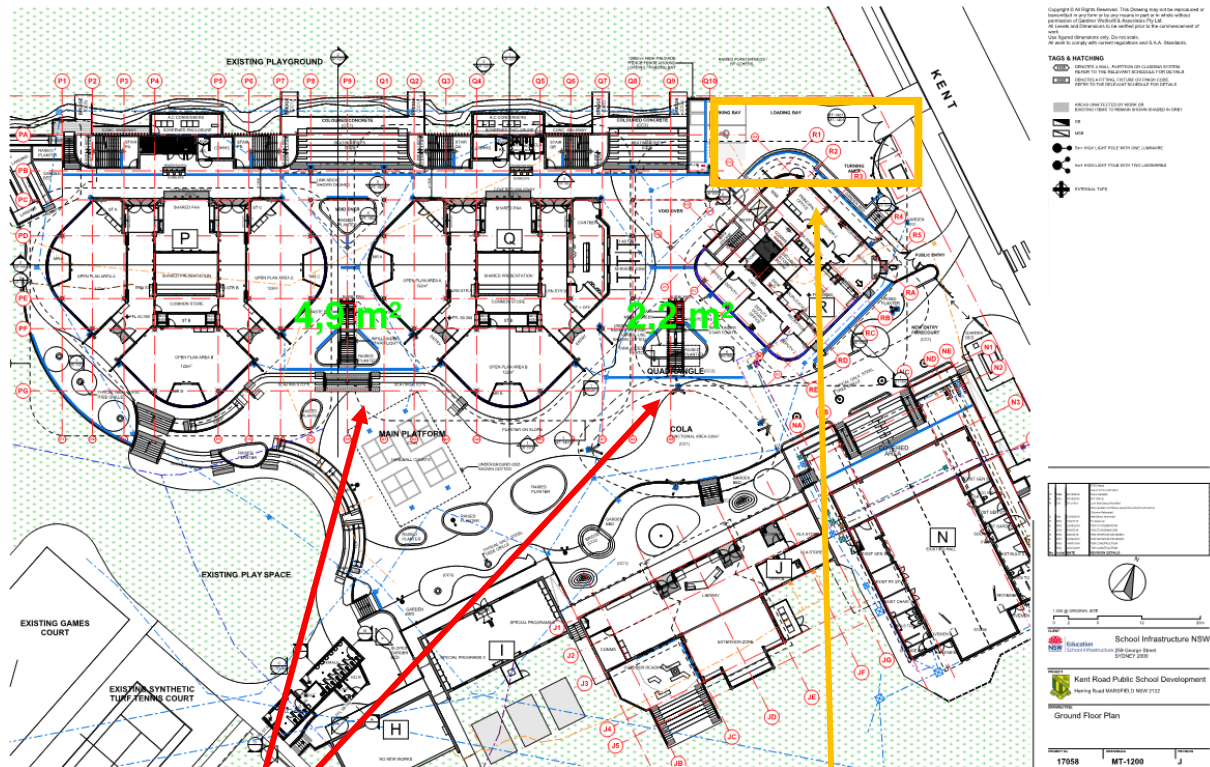
- The report has been prepared with all due care however no assurance or representation is made that the OWMP reflects the actual outcome and APC will not be liable for plans or outcomes that are not suitable for the purpose of the project, whether as a result of incorrect or unsuitable information or otherwise;
- APC offer no warranty or representation of accuracy or reliability of the OWMP unless specifically stated;

APPENDIX A - APPROXIMATE SITE LOCATION



Source: Google Maps

APPENDIX B – PROPOSED WASTE STORAGE AREAS & LOADING ZONE



Waste Storage
Total Areas
~7.1 m²

Loading Zone

The combined ~ 7 m² waste storage area is sufficiently sized for the proposed waste generation/storage requirements of the facility, based on daily waste collection events.

APPENDIX C – BCA WASTE STORAGE ROOM REQUIREMENTS

General	All waste management facilities will be compliant with the BCA and all relevant Australian Standards.
Surfaces	The floors, walls and ceilings of waste and recycling storage areas (room or bin bays) and chute room(s) must be finished with a rigid, smooth-faced impermeable material capable of being easily cleaned. The floors of waste and recycling storage areas (room or bin bays) must be graded and drained to drainage fitting approved by the relevant authority located in the room. The floor must be provided with a ramp to the doorway where necessary. The walls, ceilings and floors of the storage rooms will be finished with a light color.
Structure	The walls of the waste storage rooms will be constructed of approved solid impervious material and will be cement rendered internally to a smooth even surface covered at all intersections. The storage area will be constructed and finished to prevent absorption of liquids and odors and will be easily cleanable.
Doors	A close-fitting and self-closing door or gate operable from within the room must be fitted to all waste and recycling storage areas (rooms or bin bays). Doors/gates to the waste storage rooms must provide a minimum clearance of 1,200mm. At least one door or gate to the waste and recycling storage area must have sufficient dimensions to allow the entry and exit of waste containers of a capacity nominated for the development.
Wash down area	Typical design includes provision for a water supply: recessed with ramp access and graded floor, with a 1:10 gradient towards drain, flush grate drain, waterproof epoxy applied to floor and walls to 20cm height, water-proof bund/barrier along entry point.
Water	The waste and recycling storage area (room or bin bay) must be provided with an adequate supply of water for cleaning purposes with a hose cock. This does not include within chute rooms (if present).
Lighting	Waste and recycling rooms must be provided with artificial light controlled by switches located both outside and inside the room.
Pest Control	The waste storage rooms, areas and containers will be constructed in a manner as to prevent the entry of vermin.
Ventilation	The waste storage rooms will be supplied with an approved system of mechanical exhaust ventilation.
Safety	Any compactors or mechanical devices, if permitted for the mechanical handling and storage of waste, must be fitted with safety operating and cut-off systems. Smoke detectors will be fitted in accordance with AS1670 Automatic Fire Detection and Alarm Systems and connected to the fire prevention system of the building. The waste compactors will be fully fire proofed and child proofed. Only trained building management and waste contracting staff will have access to compactor equipment. All equipment will be protected from theft and vandalism.
Signage	Signs will be provided to demonstrate how to use the waste management system (including segregation of wastes for recycling, use of waste compactor), as well as appropriate safety signage. The different recycling and waste bins will be clearly identified and signed appropriately.

APPENDIX D – EXAMPLES OF APPROPRIATE WASTE SIGNAGE

